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ARTICLE VI.

EVIDENCES OF THE
SCYTHIAN AFFINITIES
OF THE DRAVIDIAN LANGUAGES,

CONDENSED AND ARRANGED FROM

REV. R. CALDWELL'S COMPARATIVE DRAVIDIAN GRAMMAR.

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Presented to the Society October 16th, 1861.

Extract from Mr. Webb's Letter accompanying the following Article.

Indian Ocean, May 21st, 1861.

. . . "The remarks you make on the affiliation of the Dravidian languages have led me to examine somewhat more attentively the arguments and proofs adduced by Mr. Caldwell, in his Comparative Grammar of the Dravidian Languages, in confirmation of the Scythian affinities of those idioms. As a result of that investigation, I became better satisfied with their general correctness, and assured that, were they collected and presented in combination, their weight and importance would be acknowledged by those interested in these investigations. The force of Mr. Caldwell's proofs is greatly diminished by their being thinly scattered through his entire work. His first object being, not to prove a Scythian affinity, but to compare the idioms one with another, the notices of an extra-Dravidian relationship occur, as it were, incidentally.

My work, in this paper, has been to collect, combine, and condense the proofs rather lavishly strewn over the treatise. I have generally, though not uniformly, used the words of the author; yet my plan of epitomizing and condensing as much as possible would seldom allow me to quote more than a sentence or two in a place word for word. Only here and there have I introduced a suggestion from other sources, and always either in confirmation or in amplification of the author's thought. When a paragraph of considerable length has been introduced verbatim, it has been included within quotation marks; in other cases it has not been thought necessary to encumber the page with them." . . .

THE term Drâviḍa has been adopted from the Sanskrit. It properly denotes the Tamil country only. The Brahmans of that country are called "Drâviḍa Brahmans." Its original meaning, according to Sanskrit lexicons, is 'a man of an out-cast tribe, descended from a degraded Kshatriya.' It was applied by the Sanskrit geographers to the aborigines of the extreme south, prior to the introduction among them of Brahmanical civilization. It has recently been employed to designate the cluster of idioms spoken by more than thirty millions of people inhabiting the southern portion of the Indian peninsula. In this little group of dialects, the author of the treatise from which the present abstract is made enumerates nine, which are distinct and well defined. Among these, five have written characters and a cultivated literature: they are the *Tamil*, *Telugu*, *Canarese*, *Malayalam*, and *Tulu*. These idioms differ one from another in their written characters, in their vocables and inflectional forms, and in their literary culture. They differ so essentially that a person acquainted with but one is unable to understand either of the others. They cannot, therefore, be regarded as provincial dialects of a single language, but are to be considered and treated as distinct, though affiliated. They are said to be affiliated because of the large number of roots of primary importance, and the essential and distinctive grammatical characteristics, which they all possess in common. They are on this account regarded as having had a common origin, and as forming a distinct family of tongues.

The term "Scythian" was first employed by Professor Rask to designate that group of tongues which comprises the Finnish, Turkish, Mongolian, Tungusian, and Samoëdic families. This great kingdom of speech, as it has been termed, includes all those languages spoken in Asia or Europe (excepting only the Chinese) which are not embraced in the other two great divisions, the Aryan and Semitic. They have by some been designated the "Tartar," by others the "Finnish," "Ural-Altaic," "Mongolian," and "Turanian." The objection to these terms is that, having been often used to designate one or more species, to the exclusion of the rest, they cannot properly be employed as common designations of the genus. But the term "Scythian," having been used in the classics in a vague, undefined sense, to denote generally the barbarous tribes of unknown origin that inhabited the northern part of Europe and Asia, seems to be appropriate, convenient, and available.

Mr. Caldwell claims, for the Dravidian idioms, "not merely a general relationship to the whole Scythian group, but also a position in that group which is independent of its other members, as a distinct family or genus; or, at least, as a distinct sub-genus of tongues." He regards it as most nearly allied to

the Finnish or Ugrian family, with special affinities to the Ostiak. This connection seems to be radical, though remote, and established by particulars of primary importance.

Mr. Caldwell has arrived at his conclusions by a comparison of the Dravidian dialects—of which he has a thorough and accurate scientific and practical knowledge—with the grammars and vocabularies of the group in which he classes them. He acknowledges that a great diversity exists among the members of this group; so great, indeed, that, while the Indo-European idioms form only one family or genus, of which the ten families classified under that term are but species, in the Scythian family five or six authenticated genera have been enumerated, each of which includes as many species as are contained in the solitary Indo-European genus, besides twenty or thirty isolated languages, which have up to this time resisted every effort to classify them.

Notwithstanding this diversity, however, the generic characteristics of the Scythian group are very strongly marked, and incapable of being mistaken. The Ugrian and Turkish families, for instance, can be proved by their grammatical structure and vital spirit to be cognate, with as much certainty as the Gothic and the Sanskrit, or the Zend and the Greek.

I. The history of the Dravidian people is not unfavorable to the hypothesis of the Scythian relationship of their languages.

There is sufficient evidence that the Drâviḍas lived in the Indian peninsula long prior to the commencement of history, and before the Sanskrit-speaking race had made their way over the snow-capped mountains which separated their ancestral home from the plains of the Ganges, Nerbudda, and Cavery. The Drâviḍas were doubtless the earliest inhabitants of India; or, at least, the first to enter from the northwest and cross the Indus. There is no evidence from Sanskrit authors—and they are our only authority on this point—that the Dravidians ever had any relations with the primitive Aryans but those of a peaceable and friendly character; and this could not have been true, had they followed that race into India. There is evidence that the Brahmans crossed the Vindhya mountains and entered the Dekhan and Southern India, not as conquerors, but as colonists; as priests and instructors, not as soldiers. The kings of the Pandiyas, Cholas, Calingas, and other Dravidians, appear to have been simply Dravidian chieftains, dignified by the new Brahman priests with Aryan titles. At the time when these events were taking place—some 500 years, perhaps, before the Christian era—the Dravidians were destitute of a written language, and unacquainted with the higher arts of life; but, from an examination of their language, it appears that they had acquired at least the elements of civilization. By a reference to the vocabulary of the early Tamilians, for instance, we gather, by our author's aid, the following items of information:

"They had 'kings,' who dwelt in 'fortified houses,' and ruled over small 'districts of country;' they were without books, but they had 'minstrels' who recited 'songs' at 'festivals;' they were without hereditary priests and idols, and appear to have had no idea of heaven or hell, of the soul or sin; but they acknowledged the existence of God, whom they styled *ko* or 'king,' a realistic title which is unknown to orthodox Hinduism; they erected to his honor a temple, which they called *ko-il*, 'God's house.' They were acquainted with all the ordinary 'metals,' with the exception of tin and zinc; with the 'planets,' which were ordinarily known to the ancients, excepting Mercury and Saturn. They had numerals up to a 'hundred,' some of them to a 'thousand;' but were ignorant of the higher denominations, a *lakh* and a *crore*; they had 'medicines,' but no medical science, and no doctors; 'hamlets' and 'towns,' but no cities; 'canoes,' 'boats,' and even 'ships'—*i. e.* small 'decked' coasting vessels—but no foreign commerce; and no word expressive of the geographical idea of island, or continent. They were well acquainted with 'agriculture,' and delighted in 'war.' They understood 'cotton-weaving' and 'dyeing.' They had no acquaintance with painting, sculpture, architecture, astronomy, astrology, philosophy, or grammar. Their only words for the mind were 'diaphragm,' 'the inner parts,' or 'interior;' they had a word for 'thought,' but no word distinct from this for memory, judgment, conscience, or will; to express the will, they would have been obliged to describe it as 'that which in the inner parts says, *I am going to do so and so.*'" But although there existed among them these elements of civilization previous to the arrival of the Brahmans, in intellectual, social, and political standing they were centuries behind this priestly race. They soon, however, rose in the social scale, and formed communities and states in the Dekhan rivalling those of the Aryans in the north.

II. The absence of physiological evidence to the contrary. It is acknowledged that, while in some instances physiology has contributed much to the discovery of the affiliations of races, in the effort to prove the Scythian relationship of the Dravidians it renders no aid; but seems, so far as the study has been pursued, to be utterly at fault. The Dravidians might, on the ground of physical characteristics only, as well be classed with the Caucasians, or would readily admit of being affiliated with the Indo-Europeans; for no essential difference is observed between the heads and features of the Dravidians and those of the Brahmans; and, in fact, the Dravidian type of head will even bear to be directly compared with the European, with more definite marks of suppleness and subtlety in the former, and of straight-forward moral and mental energy in the latter.

It is not safe, however, in the presence of the strong lingual

evidences to be adduced, to draw any conclusion on this ground adverse to their Mongolian or Scythian origin; for a similar change has passed upon the features of the Mohammedans of India, who are all, without doubt, of Tatar-Mongolian extraction: with the exception of a somewhat greater breadth of face and head, and a more olive complexion, they do not differ physiologically from the Hindus, properly so called. A change appears to have passed over them, similar to that which is observed in the Osmanli Turks since they settled in Europe, which has transformed them from Tatars into Europeans.

It may farther be suggested in this connection, that possibly the distinctive Mongolian type, the absence of which is acknowledged in the Dravidians, has been developed in the course of time, since the period when the plains of India were first colonized by the progenitors of their race.

III. Evidence derived from religious usages. In proving the origin and relationship of any people, the evidence gathered from their religious usages is always more satisfactory and reliable than that which is founded on physiological comparisons. The religions of the ancient Indo-European nations and those of the old Scythians of Upper Asia present many essential points of difference. In Shamanism—so is termed the superstition which prevails among the Ugrians of Siberia and elsewhere, and which was the religion of the whole Tatar race before Buddhism and Mohammedanism were disseminated among them—there was nothing which resembled the three prominent characteristics of the religion of the Indo-European family: viz., the doctrine of metempsychosis; the worship of the elements of nature, or of a pantheon of heroes and heroines; and the maintenance of a distinct and generally hereditary order of priests.

Shamanism acknowledges the existence of a Supreme Being, but no worship is rendered to him; nor are the objects of worship an inferior order of gods or heroes, but wicked and cruel spirits or demons. Any one who pleases may at any time officiate as priest, though ordinarily the father of the family, or the head-man of the hamlet or community, fills that office. Bloody sacrifices are offered with wild dances; the officiating priest or magician meanwhile exciting himself to frenzy, professes to have ascertained the mind of the propitiated demon, and, when the ceremonies are over, communicates it to those who consult him. Such is Shamanism, and the demonolatriy practiced in India by the more primitive Dravidian tribes is not only similar to this, but the very same. The Brahmans by whom the Aryan civilization and superstition was grafted on the ruder Dravidian stock labored assiduously to extirpate their religion, and in this they were generally successful; yet is it still possible to discriminate between the doctrines and practices introduced by them and the

older religion of the people. Many vestiges of the primitive superstitions still remain, and in some districts they prevail extensively, especially among the Shânârs, and other rude and less Aryanized tribes, inhabiting the provinces in the extreme south of the peninsula. So far as yet appears, every religious usage of the Dravidians which is not of Brahmanical origin is either identical with Shamanism, or closely allied to it.

IV. Evidence furnished by the Behistun tablets. Before proceeding to the proofs derived from direct linguistic analysis, we notice an incidental evidence of the Scythian relationship of the Dravidian tongues. The famous inscriptions on the tablets at Behistun, in Beluchistan, which record the political autobiography of Darius Hystaspes, in the old Persian, Babylonian, Scythian, and Medo-Persian languages, have recently been translated. The translation of the Scythic portion enables us to compare the Dravidian idioms with a fully developed copious language of the Scythian family, as spoken in the fifth century B.C. The principal points of resemblance between the Dravidian dialects and the language of the tablets are: 1. The use of the cerebral class of consonants, *t*, *d*, *n*, which are indigenous to the Dravidian languages. 2. The use of the same consonant as a surd when initial and when doubled, and as a sonant when single and medial. 3. The employment in both of similar suffixes for the genitive and the dative cases of nouns, and the accusative of pronouns. 4. The use of a similar word for the numeral 'one' (the only numeral which occurs in letters in the tablets), and the uniform employment in both of the same suffix to express the ordinal numbers. 5. The pronoun of the second person singular is exactly the same in the tablets as in the Dravidian languages. The plural, unfortunately, does not occur. 6. The use of a relative participle. Perhaps this is the most remarkable characteristic of every unaltered dialect of the Scythian family. 7. The analogous etymons in the tablets are: *nan*, 'to say,' corresponding to the Dravidian *an* or *en*; *uri*, 'make known,' Dravidian *urai*; *pori*, 'to go,' Dravidian *pô*; *ko*, 'a king,' Dravidian *kô*. From the discovery of these analogies, Mr. Caldwell concludes that "the Dravidian race, though resident in India from a period long prior to the commencement of history, originated in the central tracts of Asia, the seed-plot of nations (and languages); and that from thence, after parting company with the rest of the Ugro-Turanian horde, and leaving a colony in Beluchistan, they entered India by way of the Indus."

V. Evidence from grammatical analysis.

1. The laws of sound. The phonetic laws which govern the Dravidian languages contribute to determine the question of their affiliation.

a. Vowels. The only point of resemblance noticed under this head is what is termed "the harmonic sequence of vowels," which appears in all the languages of the Scythian group, and in the phonetic systems of at least two of the Dravidian languages. The law of harmonic sequence is that a given vowel occurring in one syllable requires a vowel of the same class in the following syllables of the same word, and the vowels of such syllables are altered accordingly. In Telugu, the range of this law, although restricted to the two vowels *i* and *u*, appears to be identical with that of the Scythian law; *u* being changed into *i*, and *i* into *u*, according to the nature of the accompanying vowel. In some cases, the vowels of the appended particles are changed through the attraction of the roots to which they are suffixed; in other instances, the vowel of one of the suffixed particles draws that of the root and that of its other appendages also into harmony with itself: e. g. *kalugu*, 'to be able,' from which is formed with perfect regularity the aorist first pers. sing. *kalugu-du-nu*; but the preterit first person is *kaligi-ti-ni*, where the change of the two final vowels of the root *kalugu* to *kaligi*, and of the personal termination *nu* to *ni*, is effected by the particle *ti*, which is the characteristic of the tense; for in the inflexion of Telugu words the most influential particles are those which indicate the time.

b. Consonants. One distinctive peculiarity of the Dravidian consonants is the convertibility of surds and sonants. There are four surd letters which are thus convertible; they are *k*, *t*, *ṭ*, *p*: *k* is convertible into its related sonant *g*; *t* into *d*; *ṭ* into *ḍ*; and *p* into *b*. They are said to be convertible, because they are pronounced as surds at the beginning of words, and whenever they are doubled; and they are always pronounced as sonants when single and mediate. A sonant cannot commence a word, neither is a surd admissible in the middle except when doubled. In Tamil, and partly in Malayalam, one set of consonants serves for both purposes, and the change is made in the pronunciation alone. This peculiarity is not found in any of the Indo-European languages; but the resemblances which are found to exist between it and the laws of sound which prevail in some of the languages of the Scythian family amounts to identity. In the Finnish and Lappish there is a clearly marked distinction between surds and sonants: a sonant never commences a word in either tongue. The same remark has been already made of the Scythic version of the Behistun tablets.

The Tamil differs from the other Dravidian dialects in refusing to combine the surd lingual *ṭ* with the lingual nasal *ṇ*, changing it in such a combination into its corresponding sonant *ḍ*. This is in accordance with a general law of sound in that language, which is, that nasals will not combine with surds, but with sonants only.

A similar rule respecting the coalescing of nasals with sonants only is found in the Finnish, and may be attributed to that delicacy of ear which both Finns and Tamilians appear to possess.

Much use is made in the Dravidian languages—as also, in truth, in all the languages of India—of a class of letters which have been termed by some “cerebrals,” by others, more correctly, “linguals.” They are *t*, *d*, *n*.

Mr. Norris, in his paper on the language of the Scythic tablets, says that Castrén, a Finlander, in his Ostiak grammar, uses distinct characters for the lingual and dental *d* and *t*, observing that similar sounds occur in the Lappish and Finnish tongues; and this argument has been employed in favor of the Scythian relationship of the Dravidian languages.

It has been replied, however, that, as this class of letters are used to a far greater extent in the Sanskrit and northern vernaculars of India than in those languages which are acknowledged to be Scythian, the conclusion would rather be that the Dravidian languages were Indo-European in their origin.

Mr. Caldwell attempts to prove that these letters were borrowed from the Dravidian languages by the Sanskrit after the arrival of the Aryan race in India; his reasons are: 1. That these consonants are not found in any of the primitive languages which are related to the Sanskrit. There is no case of these sounds in the Aryan family of tongues west of the Indus. 2. These consonants are essential component elements of a large number of primitive Dravidian roots, and are often necessary for the discrimination of one root from another; whereas, in most cases, their use in the Sanskrit is merely euphonic. 3. Those consonants which the Tamil has borrowed from the Sanskrit have been greatly modified to accord with its own laws of sound. It systematically softens down every harsh sound which it adopts; hence it seems improbable that a series of harsh, ringing sounds, like *t*, *d*, *n*, should have been adopted without change, and used in the expression of a large number of its most essential roots. 4. Though the Telugu has been more exposed to Sanskrit influences than the Tamil, yet larger use is made of these sounds in Tamil than in Telugu.

c. Dialectic interchange of consonants. Only two interchanges common to the Dravidian and Scythian families are specified.

1. A change of *l* to *r*. A similar interchange between these letters takes place in the languages of Central Asia; *l* in the Manchu is converted into *r* in the Mongolian. It should, however, be remarked that, though this change is not infrequent, the evident tendency, especially in Tamil, is the reverse of this, or from *r* to *l*.

2. The change of the peculiar vocalic lingual *r* to *d* and *l*. This interchange brings to view a very important dialectic law,

which is, that the same consonant which is *r* in Tamil is generally *ḍ* in Telugu, and always *ḷ* in Canarese: e. g. the numeral seven is in Tamil *ēru*, in Telugu *ēḍu*, and in Canarese *ēḷu*. It thus appears that *ḷ* and *ḍ* are as intimately allied as *d* and *r*. This is a point of some importance in the question under consideration; for a similar interchange is also characteristic of the Ugrian family of languages: the same word is written with *t* or *d* in the Ostiak, and with *l* in the Magyar and Finnish.

d. Principles of syllabication. The chief peculiarity of the Dravidian system of syllabication is its extreme simplicity, and its dislike of compound or concurrent consonants. Double or treble consonants at the beginning of a word or syllable, like *str* in *strength*, are altogether inadmissible. In such positions only one consonant is allowed. If, in the middle of a word of several syllables, one syllable ends with a consonant, and the succeeding one begins with another and different consonant, the concurrent letters must be euphonically assimilated, or they must be separated by a vowel. At the conclusion of a word, double and treble consonants are as inadmissible as at the beginning. Words must end either with a *vowel* (as they do invariably in Telugu and Canarese), or in one of the nasals or semi-vowels. Whenever vowels are concurrent in Tamil, Canarese, and Malayalam, the consonants *v* and *y* are used to prevent hiatus. In Telugu the letter *n* is used in the same way, and for the same purpose. These principles of syllabication differ widely from those of the Indo-European tongues. But they correspond in many respects to the system of the Scythian group. In all the particulars specified above, they accord precisely with the Finnish, the Hungarian, and other languages of the Ugrian family. The same law is observable in the language of the Behistun tablets: e. g. the word Sparta occurs with an initial *i*—thus, *Isparta*—just as it would be written at the present day in Magyar, or in Tamil.

2. *Roots.* The manner in which languages deal with their roots is strongly illustrative of their essential spirit and distinctive character. It is chiefly with reference to their differences in this particular that the languages of Europe and Asia admit of being arranged into classes. The class which embraces both the Indo-European and Scythian groups of tongues has been termed by grammarians *agglutinative*. In this class, grammatical relations are expressed by affixes or suffixes appended to the root or compounded with it. These agglutinated particles have in the Indo-European languages been gradually melted down into inflections, and sometimes even blended with the root. But in the Scythian group every root and particle of every compound word has not only maintained its original position, but

held fast its separate individuality. The two families agree in original construction, but differ in development.

The Dravidian languages differ from the Sanskrit and Greek, and accord with the languages of the Scythian group, in this particular. The root always stands out in distinct relief, unobscured, unabsorbed, though followed by a large family of auxiliary suffixes. This distinctness and prominence which the root assumes in every word is a chief characteristic of the Dravidian languages, as of all the Scythian group. When roots receive formative or inflectional additions, they sustain no internal change. Both the vowels and consonants, one or more, of which the root is composed, remain unalterable. They sustain no change or modification on the addition of signs of gender, number, and case, or of person, tense, and mood; these are successively agglutinated to the root, not welded into combination with it. All this is as true of the Dravidian roots as of those of the Scythic family generally. Whatever be the length or weight of the additions made to them, they persistently continue unchanged; appearing as fully and as faithfully in the oblique cases as in the nominative; in the preterit and future as in the present or imperative.

To this general rule there are, however, some euphonic, and a few real, exceptions. Among the latter is noticed one, which singularly enough is a Scythian, as well as a Dravidian exception. The long vowels of the roots of the personal pronouns and numerals are shortened. In the Scythian version of the Behistun tablets, while the nominative of the pronoun of the 2d person is *nî*, 'thou,' as in the Dravidian languages, the possessive case is *nĩ*, 'thy,' and the accusative *nĩn*, 'thee.' Corresponding in quantity are the Dravidian oblique cases: e. g. Telugu and Tulu have *nĩnu*, 'thee;' High Tamil *nĩn*, 'thy,' and *nĩnai*, 'thee.'

It may just be remarked in this connection, that the Dravidian languages differ from those of the Aryan family, and accord with those of the Scythian family, in generally using the crude root of the verb, without any addition, as the imperative singular.

3. Nouns.—*a. Gender.* The laws of gender in the Dravidian languages are *sui generis*, yet accord more closely with those of the Scythian than with those of the Indo-European family. In all the Aryan languages, not only is gender attributed to words as well as objects, but words implying inanimate objects, and abstract ideas, are said to possess sexual distinctions, and to be male or female, according to their form, and are consequently fitted, not with neuter, but with masculine and feminine case-terminations, and with pronouns of corresponding genders. This remark applies also to the Semitic languages. On the other hand, in the Manchu, Mongolian, Turkish, and Finnish

family of tongues, no nouns whatever, not even those which denote human beings, are regarded as in themselves masculine or feminine, but they are considered to be destitute of gender. They have inherently no mark of gender, nor is that idea involved in any of the case-terminations; but, wherever it is necessary to distinguish the sex, some word equivalent to "male" or "female," "he" or "she," is prefixed.

In like manner all primitive Dravidian nouns are destitute of gender, and sex is distinguished by suffixed fragments of pronouns, so that every word in which the idea of gender is expressed is treated as a divisible or compound word, and in the poetical dialect the ordinary suffixes of gender or rationality are generally discarded, and all nouns, as far as possible, are treated as abstract neuters. Even *Devu* (Sanskrit *deva*, masc.), a crude noun, destitute of gender, is regarded as more classical than the corresponding masculine noun used for *God* in modern and colloquial Tamil.

But in many important respects the Dravidian laws of gender differ from those of the other Scythian tongues: e. g. the distinction between rational and irrational is regarded as more momentous and essential than that between male and female, and, in the plural, this is the only distinction provided for. Not only all nouns, but even pronouns and verbs, are epicene in the plural.

The Telugu language, which is said to be spoken by fourteen millions of the Hindus, has actually no feminine singular even, but uses in the place of it the singular of the neuter: this rule applies to goddesses and queens as well as to ordinary women; but in the plural they are honored, as in the other dialects, with the rational suffixes which are applied to men, gods, and demons. Some of the rude aborigines on the Nilagiri hills employ in such cases the masculine instead of the neuter, reminding us of the use in Old Hebrew of the pronoun *hû* to signify both 'he' and 'she.'

This law of gender peculiar to the Dravidian tongues is the result of grammatical culture, and is decidedly more philosophical, though not so imaginative, as that of the Indo-European and Semitic tongues.

b. Number. In the primitive Indo-European tongues the plural is carefully distinguished from the singular. Number is always clearly denoted by inflectional terminations. In the Scythian languages, number is generally left indefinite, so that the connection alone determines whether a noun is singular or plural. In this respect, the Dravidian languages differ from the Indo-European, and accord remarkably with those of the Scythian stock. Poets and peasants, the most faithful guardians of antique forms of speech in all countries, very rarely pluralize

the neuter of Dravidian words. This rule is adhered to with especial strictness by the Tamil, which in this, as in many other particulars, exhibits most faithfully the primitive condition of the Dravidian languages. Even when a neuter noun is pluralized, the verb is very rarely pluralized to correspond. In fact, the Tamil verb contains no third person plural for the future or aorist: in this particular the verb is more decidedly Scythian than the noun.

In this connection must be noticed another point of difference between the Indo-European and Scythian languages. In the former, the signs of plurality and case are so blended that each inflection in the plural includes the two-fold idea of number and of case. The plural has a different set of case-terminations from the singular, by the use of which the complex idea of plurality and case-relation is indicated. There is no inflection for any case as such, irrespective of number, nor for number as such, irrespective of case. Moreover, there is no apparent connection between the case-terminations of the singular and those which are used in and constitute the plural. But, in the Scythian family, plurality is expressed by a sign of plurality common to all the cases, which is affixed directly to the singular, or crude form of the noun. To this sign of plurality are added the case-terminations, which are fixed and unalterable, expressing the idea of case, and nothing more, and are the same in the plural as in the singular.

In the Dravidian languages, a singular simplicity and rigidity of structure characterizes the particles of plurality, as will appear from a comparison of the declensions of the Hungarian noun *ház*, 'house,' and the Tamil noun *manai*, having the same meaning.

Declension of Hungarian noun HÂZ.

<i>Singular.</i>	<i>Plural.</i>
Nom. <i>ház,</i>	<i>ház-ak.</i>
Gen. <i>ház-nak,</i>	<i>ház-ak-nak.</i>
Dat. <i>ház-nak,</i>	<i>ház-ak-nak.</i>
Acc. <i>ház-at,</i>	<i>ház-ak-at.</i>

Declension of Tamil noun MANAI.

<i>Singular.</i>	<i>Plural.</i>
Nom. <i>manai,</i>	<i>manai-gal.</i>
Acc. <i>manai-(y)-ai,</i>	<i>manai-gal-ai.</i>
Inst. <i>manai-(y)-âl,</i>	<i>manai-gal-âl.</i>
Conj. <i>manai-(y)-ôdu,</i>	<i>manai-gal-ôdu.</i>
Dat. <i>manai-kku,</i>	<i>manai-gal-(u)-kku.</i>
Abl. <i>manai-(y)-illirundu,</i>	<i>manai-gal-illirundu.</i>
Gen. <i>manai-(y)-in,</i>	<i>manai-gal-in.</i>
Loc. <i>manai-(y)-idattil,</i>	<i>manai-gal-idattil.</i>
Voc. <i>manai-(y)-ê,</i>	<i>manai-gal-ê.</i>

The Dravidian languages possess, in addition to a neuter pluralizing particle, which was originally restricted exclusively to neuter nouns, a sign of the plural which is appropriated only to rational or personal nouns, and which is common to both masculine and feminine. In the nouns, pronouns, and verbs of these languages, the primitive form of this epicene pluralizing particle is *ar*. In Tamil and Malayâlam, there is still another particle of plurality applicable to rational beings, viz. *mâr* or *mar*. This seems to be related to some of the pluralizing particles of certain Scythian languages; in Turkish it is *lar* or *ler*, which is inserted, as in the Dravidian languages, between the crude noun and each of the case-terminations. Mongolian nouns which end with a vowel are pluralized by the addition of *nar* or *ner*. How remarkable is the resemblance to the Dravidian *mar*, both in the final *ar* and in the prefixed nasal! The Dravidian *mar* may be allied to, and perhaps the original of, the high Asian *nar*. In the Scythian tongues *n* is often elided, and the same peculiarity characterizes the Dravidian family; for *mar* has been softened into *ar*; and if both forms continued to be occasionally used, *mar*, the older of the two, would naturally and regularly acquire a honorific signification—and this we find to be the fact.

This particle is sometimes isolated from the noun which it pluralizes in a peculiarly Scythian manner: e. g. *tây-tagappan-mâr*, 'mothers and fathers,' in which both 'mother' and 'father' are in the singular, and *mâr* is appended separately to qualify both. In modern Tamil, *mâr* is appended to nouns signifying priests, kings, and parents, as a plural of honor, like the Hungarian *mek*.

The plural suffix of neuter nouns was originally and essentially *gal* or *kal*; it is indeed very generally, though perhaps improperly, used at the present day as a plural suffix of rational nouns and pronouns. In modern Canarese we have *galu*; farther north its shape is more considerably modified. In Telugu it is *lu*, *l* in Telugu corresponding to the lingual *l* of other dialects; *lu* therefore accords with the final syllable of the Canarese *galu*, the only difference being the omission of the initial *ga*. Thus, in colloquial Tamil, *avargal*, 'they,' is softened into *avâl*.

The letters *k* and *g* are dropped in a similar way in many of the Scythian languages. It is not uncommon to find one portion of a much used suffix in one language or dialect of a family, and another portion of it in another member of the same family; accordingly, in Gond, a Dravidian hill-dialect, we find that the plural neuter is formed by the addition of *k* alone: e. g. *nâi*, 'dog;' *nâi-k*, 'dogs;' in Tamil it is *nây-gal*, 'dogs.' The letter *k* is also sometimes found interchangeable with *t*: e. g. in Gond *amat*, 'we,' and *imat*, 'you.' Compare now with these David-

ian forms the Magyar and Lappish plural in *k* or *ak*, also the *t* by which *k* is displaced in almost all the other dialects of the Finnish family, and the reappearance of *l* and *t* in the Ostiak plural suffix *il*. Observe also the plural *k* in the Turkish *idum*, 'I was;' *îduk*, 'we were.' On the other hand, *t* is the sign of the plural in Mongolian, which in the Kalmuk is softened into *d*.

c. *Case*. It has been already remarked that, in both the Indo-European and Scythian families, case-relations of nouns are expressed by means of post-positions, or auxiliary words; the difference between them being that, in the former, these have been in process of time converted into technical case-signs or inflectional terminations, which have been so welded into combination with the roots as to render it in many cases impossible to distinguish between the root and its suffix; whereas, in the Scythian family, these post-positions, or auxiliary words, appended to express the reciprocal relations of the noun to the other parts of the sentence, have rigidly held fast their individual and separate existence.

Another particular in which the case-formations of the two families of language differ has been alluded to. The languages of the Indo-European family appear to have been used from the beginning on the principle of expressing the case-relations of the singular by one set of forms, and those of the plural by another. On the other hand, in all the languages of the Scythian group, the same case-signs are employed, without alteration, both in the singular and in the plural. In the singular they are appended directly to the nominative, which is identical with the base; in the plural they are appended, not to the nominative or base, but to the particle of pluralization which is suffixed to the base. The only exception of importance is that, in some of the Scythian tongues, especially in the languages of the Finnish family, the included vowel of the case-sign differs in the two numbers, being generally *a* in the singular, and *e* in the plural. In both these particulars the Dravidian languages differ from those of the Indo-European family, and are in perfect accordance with the Scythian tongues. As in the Scythian languages generally, so in the Dravidian, there is but one declension, properly so called.

Note, that the use of *v* and *y* to prevent hiatus between concurrent vowels (before alluded to) extends in its application to the concurrence of the case-signs and roots, when the former begin and the latter end with a vowel: e. g. *nadu-v-il*, 'in the middle,' *vari-y-il*, 'in the way.' Compare this with the use of *v* for a similar purpose in Magyar: e. g. *lô*, 'a horse,' and *at*, the sign of the objective case when united, appear not as *lô-at*, but as *lô-v-at*, precisely as would be the case in Tamil.

Accusative case-signs. The only sign in Tamil is *ai*; in Mala-

yâlam it is *ê*; the Canarese accusative is *am* and *an*, then *annu* and *anna*, and *nu*; in Telugu it is *nu* or *nî*; when preceded by *i* it is *nî*, when by any other vowel it is *nu*: e. g. *intî-nî*, 'domum;'
bidda-nu, 'puerum.' In the Finnish tongues, the greater number of singular accusatives are formed by suffixing *en* or *an*; in the Wotiak, by adding *â* to the root: e. g. *ton*, 'thou,' *ton-â*, 'thee;'
the Turkish accusative is *î* or *yî*; the Mongolian, *î* after a consonant. The Turkish *î* is doubtless a softened form of the oriental accusative case-sign *nî*, from which it has been derived. So in the Kalmuk pronouns we find *bida*, 'we,' *bida-nî*, 'us;'
na-mai, 'me,' and *dzi-mai*, 'thee.' Ascending farther and farther towards the source of the Scythian tongues, we find in the tablets at Behistun that the accusative singular of the pronoun *nî* is *nin*, 'thee;'
compare this with the Tulu (a Dravidian dialect), where it is *nin-u*, 'thee,' and observe how close is the resemblance.

The consonants *m* and *n* are extensively used as accusative case-signs in the Indo-European languages also. In this instance we must conclude that both languages have retained a relic of their original oneness. There are reasons, however, for connecting the Dravidian case-sign with the Scythian rather than with the Indo-European family.

The Instrumental, or 3d case. The sign of this case in Tamil and Malayâlam is *âl*, probably from *kâl*, 'a channel,' which has lost its initial *k*; as the plural sign *kal* in Tamil has become *lu*, by corruption from *kal-u*. Another mode of forming this case in the Dravidian languages is by means of the preterit verbal participle of the verb "to take," suffixed to the accusative of any noun: e. g. *vâl-ai(k)kondu*, 'having taken a knife.' This has arisen from the repugnance of the Dravidian (as of all Scythian, and in contradistinction to the Indo-European) languages to continue to make use of any inflectional form after it has ceased to express its original meaning, and has become a mere technical sign. In such cases, a word or phrase is often adopted, which has a distinct meaning of its own. The frequent use of *kondu* in the place of *âl* or *kâl* is an illustration of this practice.

The Conjunctive case. This is sometimes called in Dravidian grammar "the social ablative." The fundamental sign of this case in all the Dravidian languages is *udan*, meaning 'with,' or 'together with'—in the conjunctive, and not the instrumental, sense of the word 'with.' The Sanskrit and the other languages of that family are destitute of this case, while most of the Scythian tongues have a regularly formed conjunctive case, like the Dravidian languages. *Den*, the conjunctive case-sign of the Kalmuk, may be compared with the Tamil *udan*.

The Dative. In all the dialects of the Dravidian family, in the rudest as well as in the most polished, there is but one suffix

of the dative, which takes the forms *ku*, *ki*, *ka*, or *ge*: the guttural *k*, or its sonant *g*, is the essential part of this suffix. In the primitive Indo-European tongues we discover no trace of any such dative suffix or case-sign; but on turning to the Scythian family, interesting analogies meet us at every step. In Oriental Turkish, the forms of this suffix are *ke*, *ka*, *ge*, *ga*, etc. In Osmanli Turkish it is *eh* or *yeh*; the initial *k* or *g* having been softened into *y*, and then discarded altogether. A softening of the guttural in this case-sign, precisely similar, is observed in the Malayâlam. In the Finnish family, the Turko-Dravidian dative reappears. In the Irtish and Surgutish dialects of the Ostiak it is *ga*. We learn from the Scythian tablets that a dative suffix almost identical with the Dravidian, Turkish, and Ostiak was used by the oldest Scythian dialects of Central Asia of which any remains are extant. The dative case-sign there used is *ikki* or *ikka*. In composition, the Tamil *ku* becomes *akku* or *ukku*, and in Malayâlam, *kka* and *ikka*. Compare the cuneiform Scythian *nî-ikka* or *nî-ikki*, 'to thee,' with the Malayâlam *nani-kka*, and the Telugu *nî-ku*.

Ablative of motion. No Scythian analogies are observed in this case.

The Genitive, or 6th case. This case is formed in various ways, and by means of various suffixes, in the Dravidian languages. The personal pronouns in Tamil form their genitive by shortening the included vowel of the root: e. g. *nî* or *nîn*, 'thou;' *nîn*, 'thy;' *nâm*, 'we;' *nâm*, 'our.' In the Behistun tablets we find *nî*, 'thou,' and *nî*, the enclitic possessive. Of all genitive case-signs, *in* is that which is most frequently used for both numbers and all genders.

In Sanskrit, and in other members of the Aryan family, distinct traces are recognized of the use of a genitival particle, in which the consonant *n* is the most essential element. But in the languages of the Scythian stock, we find a large number of still more important analogies with the Dravidian genitival suffixes *in* and *nî*: e. g. Manchu and Mongolian *mi-nî*, 'of me;' Mongolian *chi-nî*, and Manchu *si-nî*, 'of thee.' In Finnish, the suffix universally employed is *n*: as *kudo*, 'house,' *kudon*, 'of a house.' In Mordwin, the genitive plural suffix is *nen*. The Lapish genitive singular takes *n* or *en*. In the Tatar or High Asian families, as in the Behistun tablets, the prevailing form of the genitive is *nen*, which systematically alternates with the simple suffix *un* or *in*. In Oriental Turkish, it is *nîng*, *nîn*, *nîng*, or *nîn*. In Ottoman Turkish, it is *un* in the plural, and *un* or *nun* in the singular. In Mongolian, it is *û* after *n*, *ûn* after any other consonant, and *yîn* after a vowel: compare the Mongolian *kôl-ûn*, 'of a foot,' with the Tamil *kâl-in*, 'of a foot.' The Kalmuk and Tibetan genitives are formed by suffixing *i* or *yîn*. Other analogies are traced, but these may suffice.

Another essential suffix of the genitive in the Dravidian languages is *a*. Though little used in the Tamil, yet, when all the Dravidian idioms are taken into consideration, it is perhaps more largely employed than any other suffix of the genitive; on which account it is placed first in the list of case-signs by Tamil grammarians—a proof of the accuracy of the Tamil classification. There is no direct Scythian analogy for this suffix. Its affinities appear to be rather with the Indo-European. In the later Teutonic dialects, however, a genitive case-sign in *a* becomes exceedingly common, and is found in the plural as well as the singular: e. g., in the Frisian and Icelandic. This resemblance between the possessives of some of the Teutonic vernaculars and that of the Dravidian languages is deserving of notice.

To the signs of the locative and vocative no analogies are traced.

It has only to be farther noted under this particular that, as in the Hungarian and some other Scythian tongues, so in the Dravidian, two or more case-signs are occasionally compounded or united in one word.

4. Numerals. Not the smallest trace of resemblance has been discovered between the Dravidian numerals and those of any Indo-European language, with the single exception of the Telugu *oka*, 'one,' as compared with the Sanskrit *eka*—in which instance the Sanskrit itself has in all probability inherited a Scythian numeral, as the numeral one in several other members of the Aryan family is evidently derived from a different base. When therefore we find, with this abnormal exception, no resemblance in the Dravidian numerals to those of the Indo-European tongues, we are led to the conclusion that the Dravidian languages must be derived from some other source. On the other hand, a comparison of the Dravidian numerals with those of the Scythian tongues appears to establish the fact of the existence of Scythian, and especially of Ugrian and Finnish analogies. It cannot properly be urged as an objection that in respect to most of the numerals no such resemblance is observed; for the same objection could be urged against the classification of many of those languages which are claimed and allowed to be of Scythian affinities. Thus it cannot be doubted that the Magyar and Finnish are sister tongues, essentially and very closely allied, yet with respect to four numerals—viz. 7, 8, 9, and 10—no distinct trace of resemblance between them survives, and it is only in the case of the numerals 1, 2, and 4 that it can be said, without hesitation, that the same root was used in both languages.

The numeral one. Two forms of the cardinal numeral 'one' are found in the Dravidian languages, which appear, however, to be remotely allied: viz. *oru* and *oka*. The basis of the first

and most commonly used form is *or*, which is its adjectival form, and the representative of the crude root. If the *k* in the second form, which is used only in the Telugu, be radical, as is most probable, then the crude adjectival form from which it was derived may have been *kor*; if so, we may at once conclude that *kor* was the original form of the Tamil-Canarese *or*, for there are several instances of the disappearance of an initial *k*, as we have before shown, while it could not have been prefixed to *or* if it had not originally stood before it. If this supposition be allowed, it is easy to see how *kor* and *oka* are allied, by the corruption of both from a common root. *Kor*, *or*, and *oka* would naturally and regularly be derived from the root *okor*, which corresponds to the Samoiede *okur*. This supposition receives a beautiful illustration and confirmation from the form which the numeral assumes in the Behistun tablets; which, be it remembered, are the oldest extant specimens of the language of the ancient Scythians. The word there employed for 'one' is *kir*, and the numeral adjective derived from it is *irra* or *ra*. Here, then, we have a word for 'one' discovered in the very fountain of ancient Scythian forms, containing both *k* and *r*; and a derived numeral adjective, from which the *k* has been softened off.* It is interesting also to notice, in passing, that the numeral adjective *ra* of the tables is identical with *ra*, the same numeral adjective of the Ku, a Dravidian dialect. The Caucasian numerals for 'one' exhibit a close resemblance to the Dravidian: they are *ar*, *arti*, *erthi*. As in the Dravidian *or*, 'one,' and *ir*, 'two,' so in these dialects, *r* forms an essential part of both.

The numeral four. It is evident from a comparison of all the Dravidian dialects that the primitive form of this numeral was *nāl* or *nal*. In the entire family of the Indo-European languages, there is not a word signifying 'four' which in the smallest degree resembles the Dravidian *nāl*. But, in this instance, Finnish and Ugrian affinities are more than usually distinct; the resemblance amounts to identity, and cannot have been accidental. In Cheremiss 'four' is *nīl*; in the Mordwin, *nīle* and *nīlen*; in Vogul, *nīla*; in Ostiak, *nīl*, *nel*, *njedla*, *nieda*; in Finnish proper, *neljä*; in Lappish, *nielj*, *nelje*, *nellä*; in Magyar, *négy*. The root of all these numerals is evidently *nīl* or *nel*, the analogy of which to the Dravidian *nāl* or *nal* is very remarkable. In the Telugu, the word for fourteen is *pāl-nāji*, where the *l* of *nāl*

* The direct derivation of the Telugu *oka*, 'one,' from the Sanskrit *eka*, seems improbable, since that language has borrowed, and occasionally uses, the Sanskrit numeral *eka*, in addition to its own *oka*, and never confounds the two. Telugu grammarians regard them as altogether independent one of another. Moreover, words closely analogous to *oka* are used in all the Finnish languages, which cannot be supposed to have borrowed them from the Sanskrit. Thus the numeral 'one' is in Wotjak *og*; in Vogul, *ak*; in Magyar, *egy*; in Lappish, *akt*; in Finnish, *yzi* (*yk-si*); in Samoiede, *okur*.

is softened down, as in the Ostiak, Lappish, and others just quoted. The resemblance between the Dravidian 'one' and 'four,' and the corresponding numerals in the Ugrian languages is so complete, that we may justly regard them as identical.

It is a characteristic of the Scythian languages that they use for 'eight' and 'nine' compounds which signify 'ten minus two' and 'ten minus one.' In some instances an uncompounded word is used for 'eight,' but 'nine' is always compounded as we have stated. The Dravidian word for 'nine' is formed in this way; and the same seems to be a rational explanation of the Telugu word *enimidi*, 'eight.'

5. Pronouns. Much light is thrown by the pronouns on the relationships of languages. In some instances, the pronouns, and especially that of the first person, constitute the only appreciable point of contact.

a. *Pronoun of the first person singular.* The form of this pronoun in colloquial Tamil is *nān*; in Malayālam, *nyān*; in Canarese, *nānu*; in Tulu, *yān*; in Telugu, *nēnu*. From a comparison of the different forms in use, we are led to regard the Tamil *nān* as the best existing representative of the old Dravidian nominative of this pronoun, and *nā* as the primitive unmodified root. The final *n* seems to be merely a sign of number, or perhaps only a euphonic formative.

There seems to be reason to conclude that the Dravidian *na* and the old Indo-European *ma* are allied, and, if so, that the former has been derived from the latter.

An examination of this pronoun in the Scythian group of tongues brings to light some very interesting analogies between the forms which it assumes in them and that which it takes in the Dravidian languages. The nominative, as well as the oblique cases, of the first personal pronoun in all existing languages of the Scythian group is derived from a base in *ma*, and not unfrequently comes into perfect accordance with the Dravidian, by changing into *na*. This *ma* is in most existing Scythian vernaculars nasalized into *man*. In Oriental Turkish, this pronoun takes the form of *men*; in Turkoman, *mān*; in Khivan, *mām*; in Ottoman Turkish, *ben* (*m* degraded to *b*); in Finnish proper, *minä*; in Lappish, *mon*; in Ostiak, *ma*, plural *men*; in the Samöiede dialects, *man*, *mani*; in Mongolian and Manchu it is *bi*, evidently corrupted from *mi*, like the Ottoman *ben* from *men*; the Magyar has *én* in the singular, and *mi* in the plural. It thus appears that the true representative of this pronoun in the Scythian tongues is *ma*, and that as *ma* has been generally euphonised into *man* in the western families of that group, so it evinces in the eastern stems a tendency to change into *na*.

The initial and radical *m* is occasionally converted into *n* in the Indo-European languages, and a similar change from *m* to *n*

is apparent in the Scythian tongues, so that this nasal has become distinctive of the first personal pronoun in those languages, just as it has in the Dravidian family.

It would thus appear that the various forms of the pronoun of the first person singular, *ma*, *na*, and the High Asian *nga*, are identical, and that this word was the common property of mankind, prior to the separation of the Indo-European tribes from the rest of the Japhetic family.

b. Pronoun of the second person singular. In Tamil, *nî* is invariably used as the isolated nominative, though *nîn*, corresponding by rule to *nân* (the pronoun of the first person), was, without doubt, the primitive form; for the final *n*, though totally lost in the nominative, is invariably retained in the oblique cases. In the personal termination of the verb, this pronoun is represented by the suffixes *ây*, *ai*, or *î*, from each of which both the initial and final *n* have disappeared; of these two *n*'s, the former appears to be essential, and the latter euphonic. There is some doubt as to the included vowel, but authority preponderates in favor of *i*. As in Tamil, so in Canarese and Malayâlam, *nî* is regarded as the crude base of this pronoun, although in Canarese the nominative is *nîn*, and in Malayâlam the oblique cases are *nan* and *nin*. The Telugu nominative is *nî-vu*, the *vu* being only euphonic. In the personal terminations of the verb, the Telugu rejects every portion of the pronominal root, and employs only the euphonic suffix *vu* or *vi*.

As the result of this comparison of the Dravidian dialects, we conclude that the primitive form of this pronoun was *nî*, but the only essential part of the pronoun appears to be the initial *n*; just as, in the Indo-European languages, *t* is the essential part of the corresponding pronoun; with a preference for the vowel *i* by the former, and *u* by the latter.

The relationship of this pronoun, unlike that of the pronoun of the first person, which has both Japhetic and Scythian affinities, is distinctly and specifically Scythian.

Throughout the Scythian as well as the Indo-European group, the most prevalent form of this pronoun in the singular is that which comes from the consonant *t*, with a preference for its phonetic equivalent *s*; which, however, is generally euphonized by the addition of a final nasal, usually the consonant *n*, as in the pronoun of the first person: e. g., *tu*, *σú*, Turkish *sü*; Samoiède *tan*; Lappish *don*. The only other consonant form used in any family of either of these groups is that which is formed from the consonant *n*, of which the cuneiform Scythian and the Dravidian *nî* is the best representative. No connexion can be traced between these roots, nor is there a change in any instance from one form into the other. The Magyar has *te*, the Armenian *tu*, the Mongolian *chi* or *dzi* (notice here the progress of *t* towards

the softer form *s*); the Finnish dialects *se, sina, sia, sie*. It is evident that there is no resemblance whatever between any of these pronouns and the Dravidian *nî*, which is doubtless an ultimate underived pronominal root. And it thus appears that there are two Japhetic bases of the pronoun of the second person, as well as two of the first.

There are traces more or less distinct, in various languages of the Scythian group, of the existence of a pronoun of the second person identical with, or evidently allied to, the Dravidian *nî*, while there are none in any members of the Aryan family. The most ancient, remarkable, and decisive is the pronoun used in the Scythian tablets at Behistun; this is *nî*, precisely as in the Dravidian idioms. In the Ugro-Ostiak, 'thou' is *nen*, 'you' is *nen*; in other Ostiak dialects we find *num* and *nyn*; in Vogul, *nei, ny, nan*; plural, *nen* and *non*.

This form of the pronoun of the second person appears in the possessive compounds, and in the personal verbal terminations of some languages: thus, in the Ostiak, *ime-n*, 'thy wife.' So, in another of the Finnish dialects, we find *kery-n*, 'thou hast done;' so in Turkish, *bâbâ-n*, 'thy father;' *bâbâ-nûz*, 'your father;' and *îdu-n*, 'thou wast.' More remarkable than all these is the Chinese *nî*, which is identical with the Dravidian-Behistun-Scythian pronoun. Compare also the *nî* of the Horpa, a dialect of the Tibetan, and also the *ninma* of the Australian dialects.

It is very evident that the affinities of the Dravidian *nî* are wholly Scythian, and this contributes largely to the establishment of the Scythian relationship of the Dravidian family.

c. *The plurals of these pronouns.* These are generally formed in the Dravidian dialects by the addition of the pluralizing particle *m*: e. g., in Tamil, *nâm*, 'we,' and *nîr*, 'you,' instead of the more regular *nîm*; and, in the colloquial dialect, *nâng-gal*, 'we,' and *nîng-gal*, 'you,' for *nâm-gal* and *nîm-gal*; a double plural has thus crept into use, similar to that which has obtained in the Turkish, where *ben*, 'I,' is regularly pluralized into *biz*, 'we,' *sen*, 'thou,' into *siz*, 'you,' which are then pluralized again by the addition of *ler*, the ordinary suffix of plurality; thus *biz-ler*, 'we,' *siz-ler*, 'you.'

In several of the languages of the Scythian family we discover traces of the use of *m* as a sign of the plural; we can, however, scarcely expect to find there a sign of plurality perfectly corresponding to that of the Dravidian, for in those languages the personal pronouns are generally pluralized by a change of the final vowel, and not by any change or addition of consonants.

In all the Dravidian dialects, excepting the Canarese, there are in constant use two plurals of the pronouns of the first person, of which one denotes not only the party of the speaker, but also the party addressed, and may be called the "plural in-

clusive;" the other excludes the party addressed, and includes only the party of the speaker, and may be called the "plural exclusive." This idiom is a distinctly Scythian one; there is no trace of it in the Sanskrit, or in any of the languages of the Aryan family; but it is found everywhere in Central Asia.

d. Demonstrative pronouns. The Dravidian languages, like most if not all other primitive uncompounded tongues, are destitute of pronouns of the third person, properly so called, and use instead demonstrative bases signifying 'this' or 'that,' with the addition of suffixes of gender and number. Four such bases are recognized in one or other of the Dravidian dialects, each of which is a pure vowel: viz. *a*, the remote, *i*, the proximate, and *u*, the medial demonstrative; also *ē*, which is used as a demonstrative only in the Ku dialect. The first two only are in common use. The suffixes which are annexed to these for the purpose of forming the gender are *d* for the neuter singular, *an* for the masculine, and *al* for the feminine. When these demonstrative bases are simply prefixed to substantives, they convey the signification of the demonstrative adjectives 'that' and 'this.'

The Magyar demonstratives are somewhat in accordance with the Dravidian *a* and *i*: e. g., *az*, 'that;' *ez*, 'this;' but in most of the languages of the Scythian family no resemblance whatever is observed.

6. The Verb. The structure of the Dravidian verb has already been partially treated of in noticing the roots; a few farther statements only will be added.

The verb has but one conjugation; class differences do indeed exist, but they are not of sufficient importance to constitute different conjugations. The Dravidian verb is remarkable for the simplicity of its structure, having but four moods—the indicative, infinitive, imperative, and negative—and but three tenses—the past, present, and aorist. The modifications of thought indicated in other languages by the various moods and tenses are expressed in these by means of suffixed particles and auxiliary verbs. In these respects it resembles, though it does not equal, the simplicity of the ancient Scythian verb. It is more rarely compounded than the Indo-European verb, and the compound of a verb with a preposition, so common in the latter, is especially rare in the former. Though compound verbs are not unknown in the Dravidian languages, their use is not in harmony with the purer idiom, and when the component elements of such compounds are examined, it will be observed that the principle on which they are compounded differs widely from that of the Aryan tongues. The same remark applies to all the Scythian languages.

a. Causals. In the Dravidian dialects, there is a class of verbs termed causals. They have been classed with transitives

by both European and native grammarians; they differ, however, from transitives, as well as from intransitives, both in signification and form. They differ also from what have been termed causals in the Indo-European languages. These latter govern two accusatives, one the object of the causation, the other that of the action caused; e. g., 'I caused him to build the house' (*domum*); whereas Dravidian causals govern the one accusative only, that of the object, leaving the person to be understood, as if we should say 'I caused to build the house:' or else the person is put in the instrumental, 'I caused the house to be built by him.' Tamil idiom, and the analogy of the other Dravidian dialects, in contradistinction to the Aryan, requires that causals should be formed, not from neuter or intransitive verbs, but from transitives alone.

In all these particulars, these verbs not only differ from those of the Indo-European languages, but resemble closely the Turkish and other members of the Scythian stock. If, for example, we should take the transitive verb 'to send,' which would be regarded as a causal in the Indo-European languages, and desire to express the idea of 'causing to send,' i. e., of causing one person to send another, it would be impossible, by any modification of structure, to get a single Indo-European verb to express the idea; but it would be necessary to make use of a phrase, as in English. Whereas, in the Dravidian languages, as in the languages of the Scythian family generally, there is a form of the verb which will express the entire idea; e. g., *anuppu-vi*, which is formed from *anuppu*, 'to send,' by the addition of the particle *vi*. So, in Turkish, *sev-dur*, 'to cause to love,' from *sev*, 'to love.'

b. The negative. This is rather a mood or voice than a conjugation, and is expressed by means of inflectional additions or changes. In the Indo-European family, negation is usually expressed by means of a separate particle, used adverbially; whereas, in the Scythian family, every verb has a negative voice or mood, as well as an affirmative. This voice or mood is generally formed by the insertion of a particle of negation between the theme and the pronominal suffix; and this mode of forming the negative is as distinctive of the Dravidian as of the Turkish and Finnish. The Dravidian sign of negation inserted between the theme of the verb and the personal suffixes is *a*, probably derived from *al*, the isolated particle of negation in the oldest Tamil dialect. The widely extended affinities of this particle are deserving of a notice. The Finnish prohibitive is *älä*; the Ostiak, *ilä*. And we find a similar prohibitive even in the Hebrew *al* and Chaldee *lā*.

In Gond, one of the Dravidian dialects, the prohibitive particle *minni* is used. This particle is not suffixed, but prefixed to

the verb, like the Latin *noli*. It closely resembles *inni*, the prohibitive particle of the Behistun tablets.

c. *The preterite tense.* The manner in which a language forms its preterite constitutes one of the most distinctive features in its grammatical character, and one which contributes to the determination of the question of its relationship. In the primitive Indo-European languages, this tense was generally formed by reduplicating the first syllable of the root or verbal theme; but this reduplication has in many instances been so softened and euphonized, that it has dwindled into the mere use of a different vowel in the preterite from that which forms part of the root.

The letter *d* is the older and more characteristic sign of the Dravidian preterite. It has many interesting affinities with corresponding signs of past time in various Indo-European and Scythian languages. It evidently has an anterior, though remote, connexion with *t* or *ta*, the ordinary suffix of the Indo-European passive participle; for in Sanskrit, this participle, though distinctively passive, has occasionally, when connected with neuter verbs, a preterite signification: e. g., *gatas*, 'one who went.' But though there is probably an ultimate connexion between the two, the use of the preterite suffix *d* is too essential a characteristic of the Dravidian languages, and that of *t* too rare an exception in Sanskrit, to admit of the supposition that the former borrowed it from the latter.

It is notable, however, how very generally the preterite is formed in the Turkish and Ugrian tongues, as in the Dravidian, by suffixing *d*: e. g., Turkish, *sever-im*, 'I love;' *sever-d-im*, 'I loved.' In Finnish, the preterite is regularly formed by suffixing *t*. So also in Hungarian: e. g., from the root *le*, 'to become,' is formed the past participle *le-tt*, and *le-tt-em*, 'I have become.' In Turkish, Finnish, and Hungarian, this particle is no way connected, as in the Sanskrit, with the passive participle, but is a distinctive sign of past time, and of that alone, and it is suffixed to all indicatives, whether active, neuter, or passive—in the latter case, in addition to the sign of passivity. In this particular, therefore, the analogy between the Dravidian preterite and the Turko-Ugrian is closer than the Indo-European analogies which have been referred to.

d. *The pronominal signs.* These, in the Dravidian languages, are always suffixed, not prefixed, as in the modern Indo-European vernaculars. Still another peculiarity is this, that the personal terminations are annexed, not directly to the root, as in the Aryan tongues, but to the tense participles; so that every pure Dravidian verb is, by Tamil grammarians, arranged in the following order: 1st. the root; 2d. the medial particle, which is the sign of tense; 3d. the variation, i. e., the pronom-

inal termination. In the Indo-European languages we meet with no instance of a formation of this kind; but it is an essential element in the family likeness by which the Dravidian family is pervaded. It is also distinctive of the Turkish and other tongues of the Scythian group: e. g., in the Turkish *öl-ür-sen*, 'thou art,' *öl* is the root, *ölür* the present participle, and *sen* the pronominal termination of the second person: in Tamil *â-n-ây*, 'thou hast become,' *â* is the root, *n* the tense-sign, and *ây* the personal termination.

e. The Relative Participle. It is a marked peculiarity of all the Dravidian idioms, that they have no relative pronoun whatever, and that its place is supplied by a part of the verb called the relative participle. This partakes of the nature of an adjective, and is invariably followed by a noun. Like the adjective, it undergoes no alteration on account of the number or gender of the related noun; but, in that it is a verb as well as an adjective, it governs the preceding noun, like any other participle of the verb to which it belongs.

The suffix most generally used by the Dravidians to form their relative participles is *a*, which is appended to the verbal participle or gerund. In this way the verbal becomes converted into a relative participle: e. g., from *ôdugir*, 'running,' comes *ôdugir-a*, 'that runs'—and so for the other tenses. This *a* seems to have been originally the possessive case-sign, containing the signification 'possessed of,' 'which has.'

In the Scythian languages, a relative participle is used instead of a relative pronoun, as in the Dravidian tongues; and the existence of a family likeness in so remarkable a particular is a strong proof of relationship. The particle used for forming the relative participle is in both groups identical with the sign of the possessive case used in the languages respectively; and farther, this sign is appended, as in Tamil or Canarese, to the verbal participle: e. g., in Manchu, from *ara*, the root, comes *aracha*, the past verbal participle, and from this is formed the relative participle *aracha-ngge*, 'which wrote.' The Scythian tablets, as also the Mongolian, have relative suffixes, appended and used as in the Dravidian languages.

In the Turkish and Finnish, and some other languages of the Scythian group, we find the existence of a relative pronoun, as well as of a relative participle, but this is foreign to the grammatical structure of those languages, and has evidently been borrowed from the usage of languages of the Indo-European stock.

7. Glossarial affinities. Very many Dravidian words exhibit a near relationship to words found in some of the languages of the Scythian, particularly to those of the Finnish dialects. These are clearer, more direct, and of a more essential character

than any observed correspondences with words in the Indo-European or Semitic languages. It is, moreover, to be particularly noted that many of those words in which affinities have been observed are of a primary character, and almost vital necessity. (For a list of these words see Caldwell, pp. 476-489.)

"How remarkable that the closest and most distinct affinities to the speech of the Dravidians of intertropical India should be those that are discovered in the languages of the Finns and Lapps of northern Europe, and of the Ostiaks and other Ugrians of Siberia! How remarkable that the Pre-Aryan inhabitants of the Dekhan should be proved by their language alone, in the silence of history, in the absence of all ordinary probabilities, to be allied to the tribes that appear to have overspread Europe before the arrival of the Goths and the Pelasgi, and even before the arrival of the Celts! What a confirmation of the statement that 'God hath made of one blood all nations of men, to dwell upon the face of the whole earth!'"

NOTE BY THE COMMITTEE OF PUBLICATION.

We cannot refrain from offering here a few remarks upon the subject of the preceding paper, particularly as Mr. Webb states himself to have been urged to its preparation by our, in part unfavorable, criticisms upon Mr. Caldwell's work. While fully acknowledging the merits of the latter as regards its proper subject, the comparison with one another of the Dravidian languages, we ventured to express our doubts as to the conclusiveness of its author's argument to prove the affiliation of those languages with the Scythian stock. And this chiefly for the reason that, as he himself acknowledges, he is master of only one of the terms of the comparison, having no familiar acquaintance with any of the Scythian dialects, much less a comprehensive knowledge of them, in their history and mutual relations. This objection has been urged, with much force, against Müller's parallel reasonings upon the same subject, in his *Letter on the Turanian Languages*. To compare, for the purpose of establishing a relationship which is at best a remote one, languages of which one has not a knowledge both extensive and penetrating, so as to be able to distinguish ancient from modern, fundamental from accidental, and the like, cannot but be an uncertain and unsatisfactory process. If the comparative grammar of the Scythian languages had been worked out with the same thoroughness with that of the Indo-European, such an undertaking would be vastly more feasible. But this is very far from being the case as yet. Moreover, the dialects of the Scythian family are remarkable for their great discordance with one another, for the slenderness of the ties which connect them, and the immense variety of elements and forms which they exhibit; hence the facility of going astray in an incautious ramble through such a wilderness of lexical and gram-

matical materials is extreme, and a careful comparative study of the different idioms, and a wary determination and selection of features among them which can be pronounced of general occurrence, and genuinely ancient, ought to precede any detailed comparison with another family of languages. Here, however, Mr. Caldwell's philological method is at fault; it is fairly open to criticism throughout as superficial, venturesome, and credulous. He is much too ready to accept coincidences of any kind, degree, or origin, as evidences of historical connection. He even catches, as lawful matter of comparison, at the degenerate forms of the modern Persian, and the dialectic peculiarities of present Teutonic vernaculars! His whole parallelism of Dravidian words and forms with Indo-European and Semitic, for the purpose of proving an ultimate connection of the former with the two latter also, contains the merest assonances and chance coincidences, of no account as historical evidence. We should have expected sound philological method, if anywhere, in the comparison of Dravidian and Sanskrit, considering the accessibility of the material, and the position of the author as an Indian philologist: but of the Sanskrit words compared, at least four-fifths would at once be recognized by a Sanskrit scholar as not ancient or genuine constituents of the language. Nor is Mr. Caldwell more accurate in his characterization of the primitive religion of the Indo-European race: of the three distinguishing features laid down by him as belonging to it (see p. 275, above), the first, metempsychosis, is so far from being original that it does not even appear in the oldest form of the Hindu religion, the Vedic; the third, a priestly order, is equally absent from the Vedic, as from the other primitive forms of the religion of the family; while the second, worship of the powers of Nature, is common to the Indo-European with other ancient forms of faith. It is not too much to say, we think, that all that part of Mr. Caldwell's work which concerns the comparison of the Dravidian race with any other than the Scythian is so nearly destitute of scientific value that its omission would have been a gain rather than a loss. That much of the comparison with the Scythian also is of the same character, we can hardly doubt; yet here the mass and variety of the collected evidence is so considerable, and the chance that it may contain items of genuine and decisive value so good, that—considering the interest of the question, and the rarity of Mr. Caldwell's work—we were very ready to admit into the Journal, for more general and convenient examination, Mr. Webb's condensed and compacted sketch of the comparison; and would merely add here a few words farther of comment and criticism.

How far the so-called Scythian of the Mesopotamian and Persian monuments is entitled to be employed as a medial term in this comparison will be for the present a doubtful question among scholars, who have not yet generally accepted with confidence the results of the few investigators who claim to have made the remarkable discovery of an ancient Ugrian language and civilization—although it must be confessed that those investigations inspire the most lively hope that a light as welcome as unexpected is here to be shed on the remote history of the Scythic race. It can hardly be otherwise than in a linguistic way, however, at any rate, that this dialect should help in settling the question of

Dravidian and Scythian affiliation; since the place of the people speaking it is too uncertain to justify us in regarding them as a local intermediary between Ugria and India, or as marking a line of emigration from the former to the latter.*

The phonetic correspondences pointed out by Mr. Caldwell are for the most part too universal in their character, too readily explainable by ordinary physiological processes, to be of weight as evidences of special affiliation: there is hardly one to which abundant analogies might not be pointed out in languages confessedly not of Scythian stock. Even the appearance in Southern India of the peculiar Scythian law of harmonic sequence of vowels, in a sporadic and partial manner, we should not be inclined to lay much stress upon, considering the naturalness of the phenomenon, and the evident possibility of its independent development, at least to the extent shown, in languages not historically connected with the Scythian.

Among the numerous special coincidences of form industriously assembled and recorded by Mr. Caldwell, while there are unquestionably some which a profounder examination would show to be fallacious, others have a look of genuineness which is very prepossessing. Whether these are in such numbers, and of such character, as entirely to exclude the possibility of explaining them as casual resemblances, such as may be found by careful search between any two groups of languages on the earth's surface, we should think would have to be reserved for farther investigation and more careful sifting to determine.

The most cogent arguments in favor of the relationship of the Dravidian and Scythian languages which the comparison instituted between them brings to light are, in our view, the correspondences of general form and spirit, apprehension of grammatical relations and treatment of linguistic materials, which they undeniably present. And if the science of comparative philology is strong enough to pronounce with confidence that such correspondences as are here displayed cannot be the result of analogous qualities of race, equal grade of capacity and culture, then the whole question is settled. But we are not certain that she has yet so far mastered the immense field of human speech as to be able to do this, and certainly there are few men living who are entitled to be accepted as her mouth-pieces in making the decision. We shall prefer, then, to consider the question of Dravidian affiliation as one not yet authoritatively settled, while giving Mr. Caldwell full credit for contributing most essentially to its final settlement, by such a thorough genetical and comparative exhibition of the Dravidian idioms as few groups of kindred languages, out of the Indo-European family, have yet received.

* Mr. Webb, apparently from a misapprehension of the meaning of an ambiguous expression once employed by Mr. Caldwell, places Behistun in Beluchistan; it is in fact in western Media, not very far from the Mesopotamian valley.